

## PATENT COOPERATION TREATY

PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>MED 2 1324 PCT</b>	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/US2004/012744</b>	International filing date (day/month/year) <b>23/04/2004</b>	(Earliest) Priority Date (day/month/year) <b>24/04/2003</b>
Applicant <b>STERIS INC.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b.  With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2.  Certain claims were found unsearchable (See Box II).

3.  Unity of invention is lacking (see Box III).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b.  none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2004/012744

### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-29

Remark on Protest

The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-29

A method of deactivating a pathogenic chemical agent by subjecting the pathogenic chemical agent to a peroxide and a nitrogen compound of formula NR1R2R3 where R1, R2 ,R3 are H or alkyl group.

---

2. claims: 30-40,46-53

A method and an apparatus of deactivating a biologically active substance by subjecting it to a mixture of a strong oxidant and an alkaline compound both in a gaseous form.

---

3. claim: 41

A method for decontamination of an item contaminated with GD, the method characterized by contacting the item in an enclosure with a vapor containing a peroxide and ammonia

---

4. claims: 42-45

A method of deactivating a pathogenic chemical compound by forming a peroxide vapor and increasing the pH of the vapor with a pH-increasing compound.

---

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2004/012744

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC 7 A62D3/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A62D A61L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, CHEM ABS Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 03/090875 A (STERIS, INC) 6 November 2003 (2003-11-06) claims -----	1-29
X	US 5 998 691 A (ABEL ET AL) 7 December 1999 (1999-12-07)	1,2,6-9, 25,26,28
Y	column 5, lines 45-67 column 6, line 61 - column 7, line 5 column 10, lines 34-59 column 13, lines 1-26 column 19, lines 30-34 claims 15-17 -----	1,3-5
Y	US 6 245 957 B1 (WAGNER GEORGE W ET AL) 12 June 2001 (2001-06-12) cited in the application column 3, lines 1-8 ----- -/-	1,3-5

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

17 May 2005

Date of mailing of the international search report

09.09.2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patenttaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Dalkafouki, A

**BEST AVAILABLE COPY**

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2004/012744

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2003/045767 A1 (BROWN JERRY S) 6 March 2003 (2003-03-06) column 1R, lines 15-27,44-61 column 2L, lines 20-2137-50 -----	1-29
Y	DD 300 472 A (VEB KUNSTBLUME SEBNITZ) 17 June 1992 (1992-06-17) claims & DD 326 735 B2 (VEB KUNSTBLUME SEBNITZ) 7 May 1992 (1992-05-07) claims -----	1-29
A	FR 2 766 724 A (IRDEC SA) 5 February 1999 (1999-02-05) page 4, lines 22-30; claims 1,7,12 -----	1,2
A	EP 1 291 040 A (KABUSHIKI KAISHA KOBE SEIKO SHO) 12 March 2003 (2003-03-12) -----	

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No

PCT/US2004/012744

Patent document cited in search report	Publication date		Patent family member(s)		Publication date
WO 03090875	A	06-11-2003	AU 2003231130 A1 CA 2482667 A1 EP 1496999 A1 WO 03090875 A1 US 2004057868 A1		10-11-2003 06-11-2003 19-01-2005 06-11-2003 25-03-2004
US 5998691	A	07-12-1999	AU 1741897 A CN 1201399 A CZ 9801301 A3 EA 980437 A1 EG 21172 A EP 0880378 A1 HR 960526 A1 TR 9800822 T2 WO 9718858 A1 ZA 9609144 A		11-06-1997 09-12-1998 16-12-1998 29-10-1998 31-12-2000 02-12-1998 28-02-1998 21-08-1998 29-05-1997 30-10-1998
US 6245957	B1	12-06-2001	NONE		
US 2003045767	A1	06-03-2003	NONE		
DD 300472	A	17-06-1992	DD 300472 A7		17-06-1992
DD 326735	B2	17-06-1992	DD 300472 A7		17-06-1992
FR 2766724	A	05-02-1999	FR 2766724 A1		05-02-1999
EP 1291040	A	12-03-2003	CN 1403215 A EP 1291040 A2 JP 2003185399 A RU 2236881 C2 US 2003050525 A1		19-03-2003 12-03-2003 03-07-2003 27-09-2004 13-03-2003